

SECTION 00846

WASHED SAND

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Production and delivery of washed sand.

1.2 REFERENCES

- A. AASHTO T 11: Materials Finer than 75 Φ m (no. 200) Sieve in Mineral Aggregates by Washing.
- B. AASHTO T 19: Unit Weight and Voids in Aggregate.
- C. AASHTO T 27: Sieve Analysis of Fine and Coarse Aggregates.
- D. AASHTO T 89: Determining the Liquid Limit of Soils.
- E. AASHTO T 90: Determining the Plastic Limit and Plasticity Index of Soils.

1.3 DEFINITIONS

- A. **Mean of the Deviations:** The sum of the absolute values of the deviations divided by the number of tests in the lot.

1.4 SUBMITTALS

- A. Ten days before placement begins, submit a written report on the following:
 - 1. Aggregate suitability. Refer to this Section, Part 2.
 - 2. Name of supplier and source.
 - 3. Job mix gradation including single values for each sieve size based on the dry weight of the aggregate.
- B. Resubmit all documents before a day's production starts if a change in source is required.
 - 1. Changes must fall within bands of Table 3 in this Section, and are subject to approval.
 - 2. Retroactive changes are allowed only for the first day's production for each construction season.

1.5 QUALITY ASSURANCE

- A. Remove products found defective after installation and install acceptable products at no additional cost to the Department.

1.6 ACCEPTANCE

- A. Engineer takes random sample tests on the grade.
- B. Acceptance will be on a lot-by-lot basis where a lot consists of a single day's production.
 - 1. Conduct one random moisture within each lot. AASHTO T 310.
 - 2. Lot Size: One day's production.
- C. Rework unacceptable material at no additional cost to the Department.
- D. Price Adjustments – Deleterious Substances
 - 1. Based on daily lot
 - 2. Pay factors for non-complying deleterious substance when tested in are indicated in Table 1.
 - 3. This applies only if Department does not order correction or removal of any or all of the material represented by the tests.

Table 1		
Deleterious Substances		
Material	Max. Percent (by weight)	Pay Factor
Coal and Lignite	0.3	0.50
Clay lumps	0.5	0.50
Other Substances	2.0	0.50

PART 2 PRODUCTS

2.1 AGGREGATES

- A. Clean, hard, tough, durable and sound mineral aggregates that consist of crushed stone or crushed gravel; free of detrimental and organic matter; and complies with the following.

Table 2

Aggregate Properties		
Dry Rodded Unit Weight	Not less than 75 lb/ft ³	AASHTO T 19
Material Passing No. 40 Sieve	Non plastic	AASHTO T 90/T 89
Dry Weight Values	Within bands shown in Table 4	
Gradation Limits	Table 4	AASHTO T 11 AASHTO T 27

Table 3

Gradation Limits			
Sieve Size	Percent Passing of Total Aggregate (Dry Weight)		
	Sand 3/8"		
3/8 inch	100		
No. 4	95 - 100		
No. 16	45 - 80		
No. 50	10 - 30		
No. 100	2 - 10		
No. 200	0 - 1.75		

2.2 SOURCE QUALITY CONTROL

- A. Aggregate: Comply with AASHTO T 27.
 - 1. Select samples randomly.
 - 2. Determine the suitability of the aggregate source.
 - 3. Document the following.
 - a. Date of test analysis.
 - b. Sieve Analysis.
 - c. Organic impurities.
- B. If tests indicate materials do not meet specified requirements, change material source and retest at no additional cost to Department.

PART 3 EXECUTION

3.1 DELIVERY

- A. Deliver to locations listed between 8 AM and 4 PM Monday through Thursday.
- B. Contact station supervisor at least 24 hours before delivery.

3.2 STOCKPILING

- A. Stockpile at locations designated by the Department.
- B. Stockpile Methods:
 - 1. **Method 1** Stockpile by butting loads
 - a. Use end dumps, end dumps and pups, or belly dumps.
 - b. Butt end dump loads one against the other in such a manner to occupy as small a total stockpile area as possible. If supplier uses belly dumps or pups, the supplier will push the stockpile up so it covers an area no larger than using end dumps. Supplier provides stockpile equipment keeping the stockpile pushed up to cover an area no larger than using end dumps.
 - d. If the Department is not satisfied with the stockpiling, the supplier must reshape the stockpile to an acceptable configuration.
 - e. If Department personnel are forced to reshape the stockpile, Department deducts reshaping amounts due the supplier.
 - Method 2** Stockpile by supplier furnished loader.
 - a. Use end dumps, end dumps and pups, or belly dumps.
 - b. Each load placed and Abucked up@ by a supplier furnished loader and operator.

- c. Stockpiles built to occupy as little space as possible and Abucked up@ to a uniform 10 foot height.
- d. If the Department is not satisfied with the stockpiling, the supplier must reshape the stockpile to an acceptable configuration.
- e. If Department personnel are forced to reshape the stockpile, Department deducts reshaping amounts due the supplier.

END OF SECTION

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